

1 **REMARKS**

2 The Office Action of November 22, 2005, has been carefully considered.
3 Claims 1-23 are pending in the application.

4 Claims 1-23 were rejected under 35 U.S.C. §103(a) as being unpatentable
5 over U.S. Patent No. 6,314,460 to Knight et al. (hereinafter referred to as the
6 Knight reference) in view of US Patent Application No. 2005/0060693 A1 to
7 Robison et al. (hereinafter referred to as the Robison reference).

8 In overview, the Applicant requests reconsideration of the finality of the
9 present Office Action so that the Applicant is allowed to properly respond to the
10 Examiner's rejections.

11 The Applicant submits the following amendments and remarks to traverse
12 the above rejections. The Applicant respectfully requests reconsideration and
13 allowance of the subject application. This Amendment is believed to be fully
14 responsive to all issues raised in the Office Action dated November 22, 2005.

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16 **Request for Reconsideration of Finality of Present Office Action**

17 On page 8 of the Office Action, the Examiner states that the "Applicant's
18 arguments filed on 02-September-2005 with respect to the rejected claims in view
19 of the cited references have been fully considered but they are moot in view of the
20 new grounds for the rejection". In the conclusion on page 8, the Examiner states
21 "Applicant's amendment necessitated the new ground(s) of rejection presented in
22 this Office action. Accordingly, THIS ACTION IS MADE FINAL".

23 The Applicant disagrees with the Examiner's determination that this Office
24 Action should be final. The Applicant basis this disagreement on MPEP 706.07(a)
25 which is reproduced below with emphasis added. According to MPEP 706.07(a),

Under present practice, second or any subsequent actions on the merits shall be final, **except where the examiner introduces a new ground of rejection that is neither necessitated by applicant's amendment of the claims nor based on information submitted in an information disclosure statement** filed during the period set forth in 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p). Where information is submitted in an information disclosure statement during the period set forth in 37 CFR 1.97(c) with a fee, the examiner may use the information submitted, e.g., a printed publication or evidence of public use, and make the next Office action final whether or not the claims have been amended, provided that no other new ground of rejection which was not necessitated by amendment to the claims is introduced by the examiner. See MPEP § 609.04(b)<. Furthermore, **a second or any subsequent action on the merits in any application or patent undergoing reexamination proceedings will not be made final if it includes a rejection, on newly cited art**, other than information submitted in an information disclosure statement filed under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17 (p), **of any claim not amended by applicant or patent owner in spite of the fact that other claims may have been amended to require newly cited art**. Where information is submitted in a reply to a requirement under 37 CFR 1.105, the examiner may NOT make the next Office action relying on that art final unless all instances of the application of such art are necessitated by amendment.

The Applicant did not file an information disclosure statement during the periods set forth in 37 CFR 1.97(c). In addition, the Applicant only amended one claim (independent Claim 1) in the reply to the First Office Action dated June 15, 2005. Independent claims 14 and 19, and their dependent claims, were as originally filed. In the present Office Action, the Examiner rejected all the claims 1-23, including the original claims 14-23, under 35 U.S.C. §103(a) as being unpatentable over the previously cited art (i.e., the Knight reference) in view of

1 newly cited art (i.e., the Robison reference). Therefore, the new grounds of
2 rejection of the original claims were **not** necessitated by the Applicant's
3 amendment.

4 Accordingly, the Applicant requests withdrawal of the finality of the Office
5 Action and entry of this Amendment so that the Applicant is allowed the
6 opportunity to properly respond to the Examiner's rejections.

8 **Claim Rejections Under 35 USC §103(a)**

9 Claims 1-23 were rejected under 35 U.S.C. §103(a) as being
10 unpatentable over the Knight reference in view of the Robison reference. For the
11 reasons that follow, the Applicant respectfully disagrees that the subject matter of
12 the above claims is obvious given the above cited references.

14 **Rejection of Independent Claim 1 and its Dependent Claims 2-13**

15 The Examiner contends that the Knight reference teaches each of the
16 elements recited in Claim 1, except that it does not teach "receiving a command
17 string" or "separating the command string into one or more string components".
18 The Examiner contends that the Robison reference teaches "receiving a command
19 string" and "separating the command string into one or more string components".
20 Then, the Examiner contends that it would have been obvious to a person having
21 ordinary skill in the art at the time the invention was made to have modified the
22 Knight reference by the teaching of the Robison reference because do so would
23 **enable the system to be distributed among remote resources, wherein**
24 **command (strings) are generated by various entities of the system, broken**
25 **down (separated) into various components, and are parsed (transmitted and**

received) by the resolving component” (emphasis added). In addition, the Examiner contends that the Robison reference teaches that separating the parameter parsing logic from the actual action handler logic leads to better separation of concerns and OO-designs.

In order to best describe why the Applicant disagrees with the Examiner’s contention, the Applicant again briefly describes an overview of the invention and then describes certain aspects in further detail. The Applicant then contrasts the claimed invention with the Knight and the Robison references that were cited by the Examiner in rejecting Claims 1-13.

In overview, the present invention is directed at an extended type manager that is configured to access precisely parse-able input and to correlate the precisely parse-able input with a requested data type. Page 19, lines 3-7. The extended type manager may perform this function in response to a request from a parser, a script engine, or a pipeline processor. Page 60, lines 12-14. When a pipeline processor requests this functionality, the extended type manager resolves partially unresolved objects that are piped through the pipeline of the operating environment from one object-based command to the next object-based command. In addition, strings specified via the object-based command pipeline, may affect the processing of incoming objects. For example, property paths specify additional processing that is performed on a direct property of an incoming object that was originally generated by a prior command. Page 61 line 20 to Page 62, line 1. The extended type manager also allows new data types to be incorporated into the operating system by various external sources. Page 20, lines 16-19. Each external source may register their unique structure within a type metadata and provide code. When the object is queried, the extended type manager reviews the

1 type metadata to determine whether the object has been registered. If the object is
2 not registered within the type metadata, reflection is performed. Otherwise,
3 extended reflection is performed. Page 20, line 23 to Page 21, line 2. Thus,
4 depending on the input type, the type metadata describes how the extended type
5 manager should query various types of precisely parse-able input to obtain the
6 desired properties for creating an object. Page 21, lines 6-9. In addition to
7 providing extended types, the extended type manager provides additional query
8 mechanisms, such as a **property path mechanism**, a **key mechanism**, a **compare**
9 **mechanism**, a **conversion mechanism**, a **globber mechanism**, a **relationship**
10 **mechanism**, and a **property set mechanism**. Page 21, lines 13-16.

11 In contrast, the Knight reference is directed at an analyzer for a storage
12 network attached to a host computer system through multiple controllers that
13 receives information from each controller concerning a shared storage network
14 bus, and resolves incomplete information received from one controller using
15 information received by another controller, as described in the Abstract. The
16 **“storage network as used herein is an interconnected group of storage devices**
17 **and controllers”**, as described in Column 5, lines 40-41. With this configuration,
18 **“it is possible for a host to communicate with any storage device in a storage**
19 **network to which the host is connected, without crossing another host’s**
20 **backplane bus.”** While the Knight reference acknowledges that the network
21 configurations that are shown are merely illustrative, it states that the “number of
22 host systems, I/O controllers, buses, and storage devices may vary considerably”.
23 Thus, the shared network may be various configurations of host systems, I/O
24 controllers, busses, and storage devices.
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1 Again, the Applicant disagrees with the Examiner's correlation of "the
2 shared storage network" with the "interactive operating environment" recited in
3 Claim 1. To further clarify, the Applicant has amended Claim 1 to recite
4 "receiving a set of objects output from a prior command via an object-based
5 command pipeline" and "processing the set of objects using an operating
6 environment mechanism to resolve each object into a data type". In other words,
7 objects output from a prior command are received and are processed using an
8 operating environment mechanism. Claim 11 further clarifies that the set of
9 objects is received as input to a subsequent command in the object-based
10 command pipeline after processing the set of objects using the operating
11 environment mechanism. Thus, the claimed invention is not directed at parsing
12 the parameters entered on a command line into objects.

13 Upon review of the Robison reference, the Applicant contends that the
14 Robison reference merely discloses the parsing of parameters of a command string
15 into objects. For example, paragraph [0018] states the following:

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17 [A]n embodiment of the present invention provides a command-line
18 (command string) processing system for an OO environment. A
19 command processor receives a command-string that is parsed into
20 character string tokens. A parameter-handler (a type of parser) then
21 attempts to match each successive token against command syntax
22 descriptions that are loaded from syntax files. If the first token is
23 matched against the first item of a command, whether that item is
24 defined to be a command keyword or a parameter, then the
25 parameter-handler tries to match the next token against the next item
in the command. This iterative matching process continues until no
more matching can be performed. If all specified tokens have been
matched successfully against the command syntax, then it is thus
determined that the syntax is indeed that of the specified command.
But if no match is found for one of the tokens, then the command
processor continues its attempts to match the command-string with
other syntax descriptions. If the entered command-string does not

1 match any syntax description, then an error is indicated and a help
2 message, e.g., proper usage of the attempted command or the
3 command that most closely matched an invalid command, is
4 outputted to the user or external calling module.

5 The Robison reference further explains that “the specified token should
6 exactly match the keyword expected by the command processor at that position
7 and/or context within the command string” in paragraph [0019]. In paragraph
8 [0021], the Robison describes the goal of their command string parsing as follows:

9 Such a command-line processing system can successfully process
10 new command-strings when syntax descriptions for such new
11 commands are entered in the syntax descriptions for such new
12 commands are entered in the syntax files. New commands are those
13 that were previously unsupported by the command-line processing
14 system. The parameter-handling modules can be leveraged and
15 reused by syntax descriptions. This can promote object-oriented
16 design goals and substantially separate command-string parsing and
17 processing concerns from the actual code for the command
18 execution. The command execution code receives a set of data
19 objects on which it can operate rather than a set of tokens that it
20 must itself validate and convert to data objects.

21 The Applicant contends that neither the Knight reference nor the Robison
22 reference nor any permissible combination of both, teach “receiving a set of
23 objects output from a prior command via an object-based command pipeline”
24 and “processing the set of objects using an operating environment mechanism
25 to resolve each object in the set into a data type” (emphasis added) as recited in
Claim 1. For example, the Robison reference discloses command string parsing
that separates parameter parsing logic from the actual action handler logic. This
command string parsing disclosed in the Robison reference does not teach or
suggest the limitations recited in Claim 1. For example, there is no mention of

1 outputting a set of objects by a prior command. Rather, the objects discussed in
2 Robison are objects created from the parameters entered on the command line. In
3 addition, there is no mention of a “pipeline”, let alone an object-based command
4 “pipeline” as recited in Claim 1.

5 In summary, the Examiner has not cited any reference that teaches or
6 suggests the claimed invention. In fact, even if all of the cited references could be
7 combined, their combined teachings could not possibly suggest the present
8 invention. In addition, there is no suggestion or motivation to combine these
9 references. Thus, for any of the reasons above, the Applicant contends that the
10 Knight reference, whether considered alone or with any permissible combination
11 of prior art of record, including the Robison reference, does not teach or suggest
12 each limitation recited in independent Claim 1. Therefore, the Applicant
13 respectfully submits that the §103 rejection of independent Claim 1 is improper,
14 and respectfully requests reconsideration and withdrawal of this rejection.

15 Furthermore, the dependent Claims 2-13 of Claim 1 include other limitations
16 that are not taught or suggested by the prior art of record. For example, Claims 5-8
17 recite “receiving a string via the object-based command pipeline”. In contrast with
18 the teachings in the Robison reference, this string is not parsed into objects, but
19 rather the string affects the processing of the set of objects output from a prior
20 command via the object-based command pipeline. Claim 5 recites “the string
21 includes a wildcard” and “processing by the mechanism comprises producing a
22 subset of the set of object”. Claim 6 recites “the string includes a property set”
23 and “processing by the mechanism comprises identifying a plurality of properties
24 associated with the property set and processing the set of objects based on the
25 plurality of properties.” Claim 7 recites “the string includes a relation” and

1 “processing by the mechanism comprises finding items that the set of objects
2 consume based on the relation.” Claim 8 recites “the string comprises a property
3 path, the property path comprises a series of components that provide navigation
4 to a desired property of each object in the set”. Thus, the string is not parsed into
5 an object as disclosed by the Robison reference. Rather, *the string affects the*
6 *processing of the set of objects output from a prior command*. Claim 11 further
7 recites that the “set of objects is received as input to a subsequent command in the
8 object-based command pipeline after processing the set of objects using the
9 operating environment mechanism”. The Robison reference does not disclose, a
10 pipeline, an object-based command pipeline, a set of object received as input to a
11 subsequent command, and processing the set of object using the operating
12 environment mechanism.

13 Therefore, for at least the above reasons, Applicant respectfully submits that
14 the §103 rejections of dependent Claims 2-13 is improper, and respectfully requests
15 reconsideration and withdrawal of this rejection.

Rejection of Independent Claims 14 and 19 and their Dependent Claims

The Examiner contends that the Knight reference teaches each of the elements recited in independent Claims 14 and 19, except that it does not teach “receiving parseable input”. The Examiner contends that the Robison reference teaches “receiving parseable input”. Then, the Examiner again contends that it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified the Knight reference by the teaching of the Robison reference because including receiving parseable input, would **enable the system to be distributed among remote resources, wherein input command (strings) are generated by various entities of the system and parsed (transmitted and received) by the resolving component**”. (emphasis added)

The Examiner now contends that the shared storage networks teaches an operating environment as recited in Claims 14 and 19. Without out unnecessarily repeating the above arguments for independent Claim 1, the Applicant states that the applicable arguments above also apply to these claims.

The Applicant has amended independent Claims 14 and 19 to clarify that the parseable input is received as “output from a prior command via an object-based command pipeline within an operating environment”. As discussed above, the Robison reference discloses a command string parsing method where strings entered on a command line are converted to objects before execution by a command. This does not teach or suggest the recited “object-based command pipeline” or “receiving parseable input output from a prior command” as recited in Claims 14 and 19.

In summary, the Examiner has not cited any reference that teaches or suggests the claimed invention. In fact, even if all of these references could be

1 combined, their teachings could not possibly suggest the present invention. In
2 addition, there is no suggestion or motivation to combine these references. Thus,
3 for at least any of the above reasons, the Applicant contends that the Knight
4 reference, whether considered alone or with any permissible combination of prior
5 art of record, including the Robison reference, does not teach or suggest each
6 limitation recited in independent Claims 14 and 19. Therefore, the Applicant
7 respectfully submits that the §103 rejection of independent Claims 14 and 19 is
8 improper, and respectfully requests reconsideration and withdrawal of this
9 rejection.

10 Furthermore, the dependent Claims 15-18 and 20-23 of Claim 14 and 19,
11 respectively, include other limitations that are not taught or suggested by the prior art
12 of record. Therefore, for at least the above reasons, Applicant respectfully submits
13 that the §103 rejections of dependent Claims 15-18 and 20-23 is improper, and
14 respectfully requests reconsideration and withdrawal of this rejection.
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Conclusion

By the foregoing remarks, Applicant respectfully requests reconsideration of the finality of the present Office Action so that the Applicant is given the proper opportunity to respond. The Applicant believes that pending claims 1-23 are allowable and the application is in condition for allowance. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the Applicant at the telephone number provided below.

Respectfully Submitted,

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